

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE  
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method for controlling odor associated with deposits  
of organic material which can cause odors on surfaces, the  
method comprising applying to the surface a composition  
comprising one or more adhering agents and a preparation of  
dormant bacteria, which when activated are effective to  
control odors, the dormant bacterial preparation being  
allowed to become associated with surface such that when  
the surface is subsequently exposed to organic material  
which can cause odors, the bacteria are capable of becoming  
active and digesting the organic material.

what  
one actually  
- port. ?

can only  
apply to  
one site  
at a time?

was  
97/43385  
v. 8606

2. A method as claimed in claim 1 wherein the dormant  
bacteria are sporulated forms of one or more strains  
selected from the bacterial genera Bacillus.

→ '606 col. 2, line 6

3. A method as claimed in claim 1 wherein the dormant  
bacteria are sporulated forms of one or more strains  
selected from the group of bacterial species consisting  
essentially of Bacillus megaterium, Bacillus pasteurii,  
Bacillus laevolacticus and Bacillus amyloliquefaciens.

→ '606 col. 2, line 49

4. A method as claimed in claim 3 wherein the dormant  
bacteria are applied to the surface at a concentration of  
between about  $10^6$  and about  $10^8$  cells per square inch of  
surface.

'606, col. 4, line 40

5. A method as claimed in claim 4 wherein the dormant  
bacteria are applied to the carpet at a concentration of  
about  $10^7$  cells per square inch of surface.

'606, col. 4 line 40

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6. A method as claimed in claim 3 wherein the dormant bacterial preparation comprises:

		<u>% of total bacteria</u>	
5	<u>Species</u>	<u>Range</u>	
	<u>Bacillus megaterium</u>	5-60	all
	<u>Bacillus pasteurii</u>	10-40	1606, col. 4, lines
	<u>Bacillus laevolacticus</u>	10-40	
	<u>Bacillus amyloliquefaciens</u>	10-40	

10. 7. A method as claimed in claim 3 wherein the dormant bacterial preparation comprises:

		<u>% of total bacteria</u>	
	<u>Species</u>		
15	<u>Bacillus megaterium</u>	40	1606, col. 4, all lines
	<u>Bacillus pasteurii</u>	20	
	<u>Bacillus laevolacticus</u>	20	
	<u>Bacillus amyloliquefaciens</u>	20	

20 8. A method as claimed in claim 3 wherein the one or more adhering agents are one or more anti-soiling fluorochemicals or stain-blocking chemicals. 43385 1212 1707

25 9. A method as claimed in claim 8 wherein the one or more stain-blocking chemicals are selected from the group consisting of sulfonated phenol formaldehyde condensate polymer, sulfonated naphthol formaldehyde condensate polymer, and hydrolyzed vinyl aromatic maleic anhydride polymer. 1212 1707 p. 32 4 1212

30 10. A method as claimed in claim 8 wherein the one or more adhering agents are one or more anti-soiling fluorochemicals. 1212

35 11. A method as claimed in claim 1 wherein the bacterial preparation further includes one or more odor neutralizing or trapping agents selected from sodium bicarbonate and molecular sieves. p. 30

12. An aqueous odor controlling bacterial composition for surfaces to impart odor control to the surface, the composition comprising one or more adhering agents and an effective amount of dormant odor controlling bacteria.

13. An aqueous odor controlling bacterial composition as claimed in claim 12 wherein the dormant bacteria are one or more strains selected from the group of bacterial genera consisting of Bacillus, Enterobacter, Streptococcus, Nitrosomonas, Nitrobacter, Pseudomonas, Alcaligenes and Klebsiella.

14. An aqueous odor controlling bacterial composition as claimed in claim 13 wherein the dormant bacteria are one or more strains selected from the group of bacterial species consisting essentially of Bacillus megaterium, Bacillus pasteurii, Bacillus laevolacticus and Bacillus amyloliquefaciens.

15. An aqueous odor controlling bacterial composition as claimed in claim 14 wherein the dormant bacteria are for application to the surface at a concentration of between about  $10^6$  and about  $10^8$  cells per square inch of surface.

16. An aqueous odor controlling bacterial composition as claimed in claim 14 wherein the dormant bacterial preparation comprises:

Species	% of total bacteria
<u>Bacillus megaterium</u>	5-60
<u>Bacillus pasteurii</u>	10-40
<u>Bacillus laevolacticus</u>	10-40
<u>Bacillus amyloliquefaciens</u>	10-40

17. An aqueous odor controlling bacterial composition as claimed in claim 14 wherein the dormant bacterial preparation comprises:

	<u>% of total bacteria</u>
5 <u>Species</u>	
<u>Bacillus megaterium</u>	40
<u>Bacillus pasteurii</u>	20
<u>Bacillus laevolacticus</u>	20
<u>Bacillus amyloliquefaciens</u>	20

10    18. An aqueous odor controlling bacterial composition as claimed in claim 14 wherein the one or more adhering agents are one or more stain-blocking chemicals selected from the group consisting of sulfonated phenol formaldehyde  
15    condensate polymer, sulfonated naphthol formaldehyde condensate polymer, and hydrolyzed vinyl aromatic maleic anhydride polymer.

20    19. An aqueous odor controlling bacterial composition as claimed in claim 22 wherein the one or more adhering agents are one or more anti-soil fluorochemicals.

25    20. An aqueous odor controlling bacterial composition as claimed in claim 14 wherein the composition includes one or more odor neutralizing or trapping agents selected from sodium bicarbonate and molecular sieves.

30    21. A carpet capable of controlling odor associated with deposits of organic material which can cause odors on the carpet, the carpet comprising fibers tufted through a primary backing, the fibers having associated therewith a preparation of dormant bacteria, which when activated are effective to control odors, such that when the carpet is subsequently exposed to organic material which can cause  
35    odors, the bacteria are capable of becoming active and digesting the organic material.

22. A carpet as claimed in claim 21 wherein the bacteria are one or more strains selected from the group of bacterial genera Bacillus.

- 5 23. A carpet as claimed in claim 22 wherein the bacteria are one or more strains selected from the group of bacterial species consisting essentially of Bacillus megaterium, Bacillus pasteurii, Bacillus laevolacticus and Bacillus amyloliquefaciens.

- 10 24. A carpet as claimed in claim 23 wherein the dormant bacteria are applied to the carpet at a concentration of between about 10<sup>6</sup> and about 10<sup>8</sup> cells per square inch gram of carpet fiber.

- 15 25. A carpet as claimed in claim 24 wherein the dormant bacteria are applied to the carpet at a concentration of about 10<sup>7</sup> cells per square inch gram of carpet fiber.

- 20 26. A carpet as claimed in claim 25 wherein the dormant bacterial preparation comprises:

% of total bacteria

<u>Species</u>	<u>Range</u>
<u>Bacillus megaterium</u>	5-60
25 <u>Bacillus pasteurii</u>	10-40
<u>Bacillus laevolacticus</u>	10-40
<u>Bacillus amyloliquefaciens</u>	10-40

- 30 27.. A carpet as claimed in claim 25 wherein the dormant bacterial preparation comprises:

% of total bacteria

<u>Species</u>	
<u>Bacillus megaterium</u>	40
<u>Bacillus pasteurii</u>	20
35 <u>Bacillus laevolacticus</u>	20
<u>Bacillus amyloliquefaciens</u>	20

28. A carpet as claimed in claim 25 wherein the carpet has also been treated with one or more stain-blocking chemicals.

5 29. A carpet as claimed in claim 28 wherein the one or more  
stain-blocking chemicals are selected from the group  
consisting of sulfonated phenol formaldehyde condensate  
polymer, sulfonated naphthol formaldehyde condensate  
polymer, and hydrolyzed vinyl aromatic maleic anhydride  
10 polymer.

30. A carpet as claimed in claim 29 wherein the preparation contains an amount of the stain blocker to result in a treatment rate of the carpet of about 0.1 wt% to about 20 wt% based upon the weight of the carpet fiber.

31. A carpet as claimed in claim 30 wherein the treatment rate is from about 0.25 wt% to about 20 wt%.

20 32. A carpet as claimed in claim 31 wherein the carpet has  
also been treated with one or more anti-soil  
fluorochemicals.